| | Application No. | Applicant(s) | |
|---|---|---|----------------|
| Notice of Allowability | 10/083,978 | PLATT ET AL. | |
| | Examiner | Art Unit | |
| | Shamim Ahmed | 1765 | |
| The MAILING DATE of this communication apperall claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI | (OR REMAINS) CLOSED i or other appropriate comm GHTS. This application is | n this application. If not include unication will be mailed in due | course. THIS |
| 1. This communication is responsive to <u>5/25/04</u> . | | | |
| 2. X The allowed claim(s) is/are <u>1-12,14-30 and 47-49</u> . | | | |
| 3. The drawings filed on <u>02 February 2002</u> are accepted by the | he Examiner. | | |
| 4. Acknowledgment is made of a claim for foreign priority ur a) All b) Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)). * Certified copies not received: | been received. be been received in Applicati | on No ed in this national stage applica | ition from the |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. | of this communication to fil MENT of this application: | e a reply complying with the re | i |
| 5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. | | | |
| 6. CORRECTED DRAWINGS (as "replacement sheets") mu (a) including changes required by the Notice of Draftsper 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in | son's Patent Drawing Revie 's Amendment / Comment (| or in the Office action of the drawings in the front (not the | e back) of |
| DEPOSIT OF and/or INFORMATION about the depo- attached Examiner's comment regarding REQUIREMENT | osit of BIOLOGICAL MATERIATION OF B | TERIAL must be submitted. IOLOGICAL MATERIAL. | Note the |
| Attachment(s) 1. ☐ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☑ Information Disclosure Statements (PTO-1449 or PTO/SB/Paper No./Mail Date 4/8/04 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material | 6. Interview Paper No 708), 7. Examiner | Informal Patent Application (PT Summary (PTO-413), o./Mail Date 's Amendment/Comment 's Statement of Reasons for Al | .* • |
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REASONS FOR ALLOWANCE

- 1. The following is an examiner's statement of reasons for allowance: The prior art does not teach a process of forming a bond between members of MEMS including the step of depositing a first layer of mating material on a first mating surface and then depositing a first layer of bonding material of gold or tin on the first layer of mating material and also does not teach the step of depositing a second layer of mating material on a second mating surface and depositing a second layer of bonding material of indium or lead on the second layer mating material as defined in claim 1.
- 2. The prior art does not teach a process of forming a bond between members of MEMS including the step of depositing a layer of gold on a first mating surface and depositing a layer of indium on a second mating surface, wherein the gold layer is in excess of the layer of indium as defined in claim 16.
- 3. The closest prior art Lin et al (US 2001/0021570 A1) disclose a process of bonding members of a micro electro mechanical system (MEMS), wherein depositing a first layer of gold (Au) is deposited on a first mating surface such as pyrex glass cap layer but does not teach depositing a first mating material on the first mating surface and then depositing a first bonding material of gold or tin on the first layer of mating material as claimed.

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Terminal Disclaimer

4. The terminal disclaimer filed on 5/25/04 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of USP 6,234,378 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shamim Ahmed whose telephone number is (571) 272-1457. The examiner can normally be reached on M-Thu (7:00-5:30) Every Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine G Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shamim Ahmed Examiner Art Unit 1765

SA June 8, 2004

SUPERVISE... EXAMINER